



Rockwell Collins Synthetic Vision Information System Background & Program Overview

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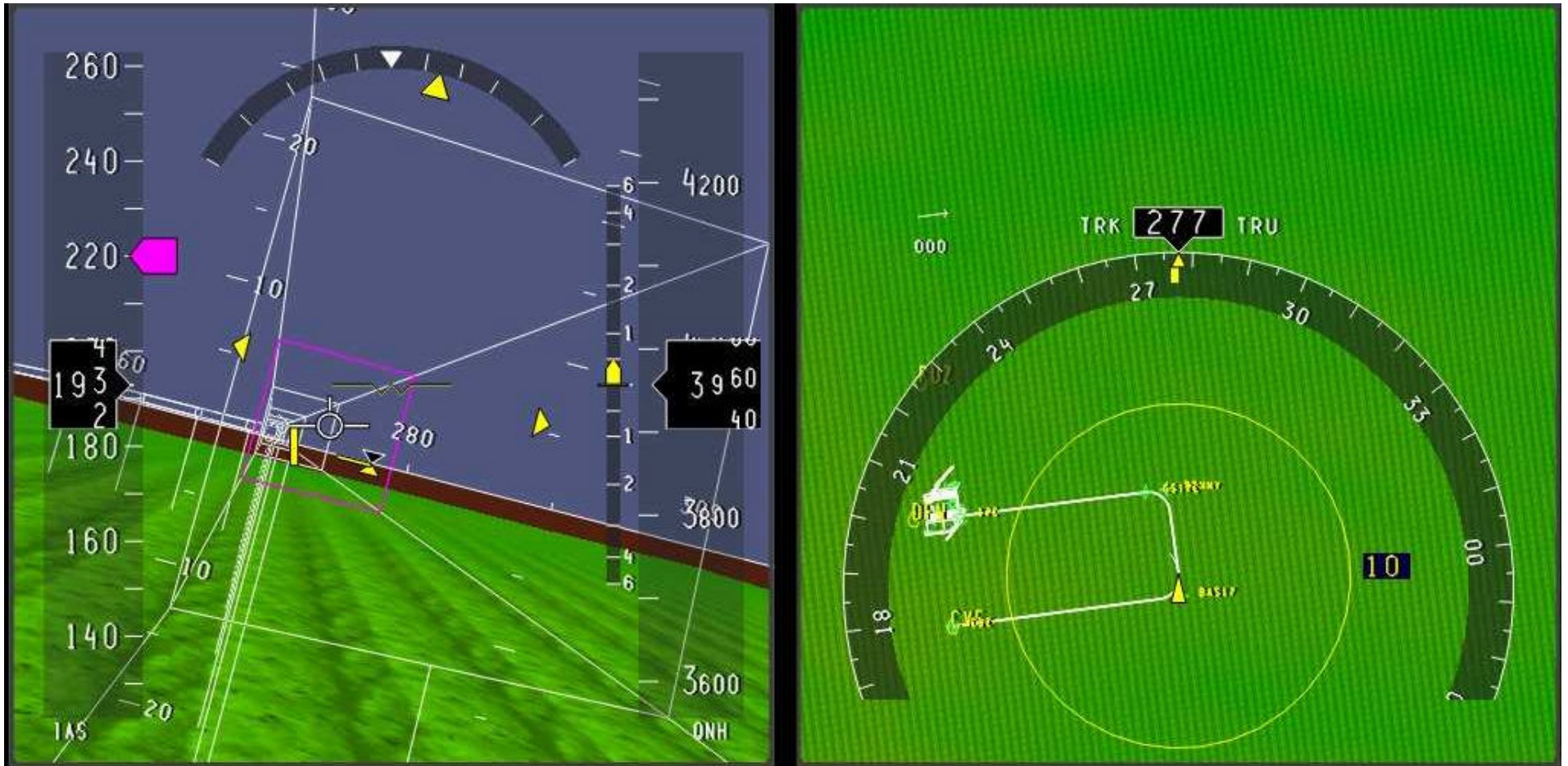


Synthetic Vision Information Systems (SVIS)



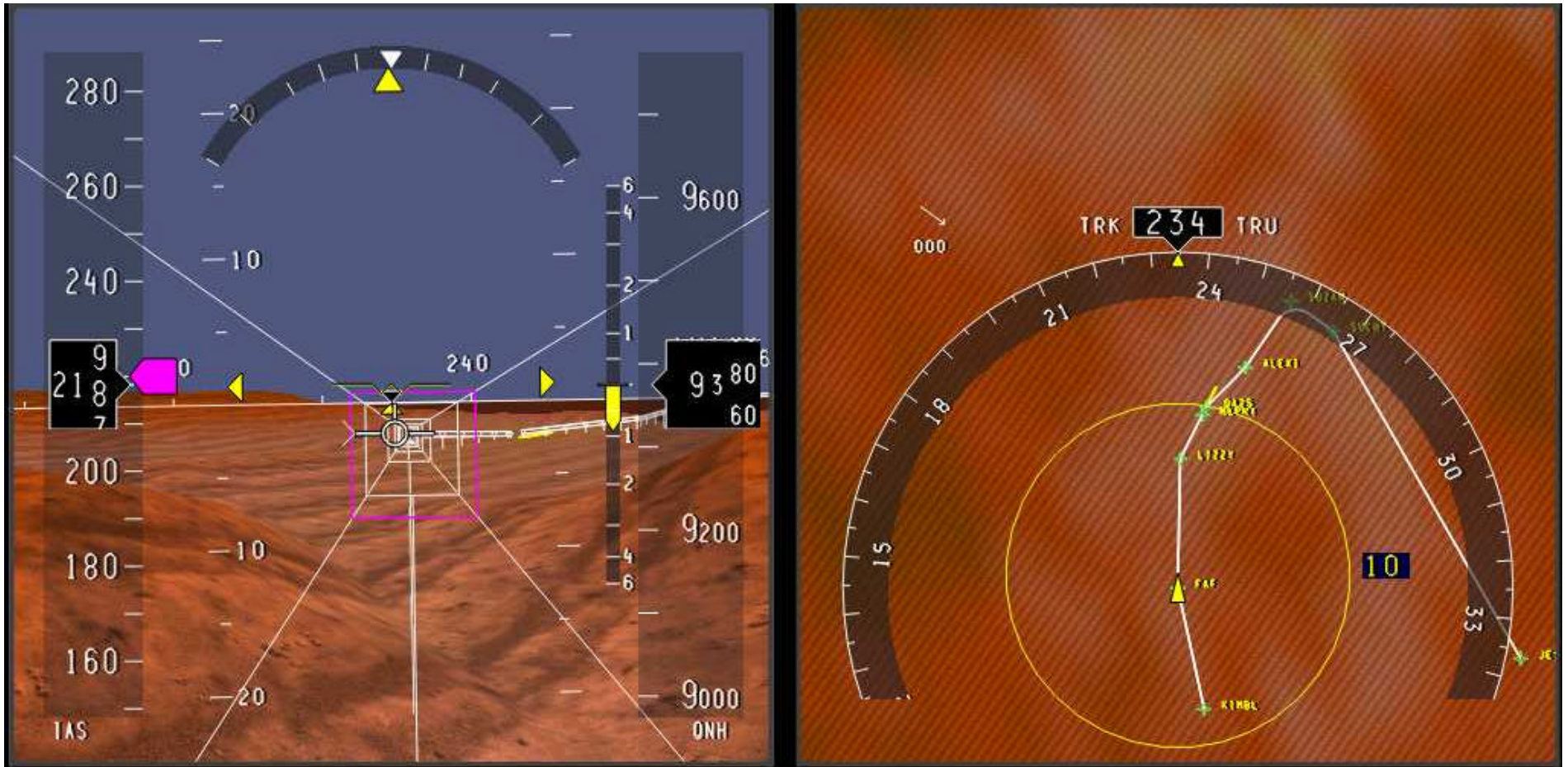


DFW Primary Flight Display and Navigation Display





Eagle-Vail CO





Expected Benefits

- Improved situational awareness (terrain, obstacles, energy, stability, position and traffic) with less workload
- Decrease frequency of landing short, flying too close to terrain, or blundering onto an active runway
- Terrain and traffic conflict resolution guidance
- More intuitive guidance cues during the critical phases of takeoff and landing
- Positive guidance for missed approach or emergencies
- Enhanced ability to handle complex or unfamiliar procedures
- Accurately and intuitively monitor automatics (autopilot, FMS and auto-throttle)



Initial Indications of Effectiveness

- **Rockwell Collins concepts considered effective and fairly mature**
- **Pilots able to hand fly transport aircraft within the 300 foot lateral and vertical boundaries**
- **Minimized terrain database set and regular texture pattern provides excellent visualization of salient terrain features**
- **Pathway visualization effective for complex maneuvers and automation monitoring**
- **Human factors studies commencing at Eagle Research Labs to measure SA and workload of SVIS PFD and MFD compared to traditional PFD/MFD with EGPWS**



Synthetic Vision Pallet





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